



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

HP

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/529,292

03/25/2005

Takeshi Konno

CSP-111-A

1998

21828

7590

08/04/2006

CARRIER BLACKMAN AND ASSOCIATES  
24101 NOVI ROAD  
SUITE 100  
NOVI, MI 48375

EXAMINER

AMAYA, CARLOS DAVID

ART UNIT

PAPER NUMBER

2836

DATE MAILED: 08/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/529,292

Applicant(s)

KONNO, TAKESHI

Examiner

Carlos Amaya

Art Unit

2836

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,7-10 and 12-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-5, 7-10, 12-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. Examiner notices the error on Office action mailed on 03/22/2006, and acknowledges that Applicant claims foreign priority under 35 U.S.C. 119, and that such documents have been submitted.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3-5, 7-10, 12-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buchner (US 6,194,997) in view of Desai (US 6,236,850).

With respect to claim 1 Buchner discloses an electronic key system for a vehicle (Antitheft system Figure1) including a controller (Control unit 1) mounted in the vehicle and a portable transceiver (Key 9, is a code transmitter capable of receiving and transmitting coded signals. Since it functions as a transceiver Key 9 is called a portable transceiver, Column 3 lines 42-46) carried by a user of the vehicle, the vehicle comprising a locking unit (Door locks 2, tailgate lock 3) which locks the vehicle so that use of the vehicle is not possible until a lock release command is received (Column 3, lines 53-58), and wherein the controller comprises: a transmitter that outputs a request signal (Column 3 lines 14-15, and lines 40-41) to the portable transceiver in response to

Art Unit: 2836

an ON operation of a predetermined switch (Activation switch 7, Column 3 lines 35-36), the predetermined switch previously determined from among a plurality of switches (Ignition lock 21, Brake pedal 22 and monitoring devices 13,14 and 15) positioned in the vicinity of the user when the user boards the vehicle, as the selection and location of the activation switch has been predetermined by the designer/manufacture of the vehicle; a receiver (antenna 4) which receives an acknowledgement signal in response to the request signal from the portable transceiver, a drive unit (a drive unit is inherently provided, since locking and unlocking is performed, there is also a mechanism that releases the steering lock or immobilizer) which, when the acknowledgement signal is compared and judged to be a request from the user, outputs a lock release command to the locking unit (Column 3 lines 53-55). An interrupting unit controller which permits a switching unit to supply power to the transmission circuit and the receiving circuit in response to an ON operation of the predetermined switch among the plurality of switches positioned in the vicinity of the user when the user boards the vehicle (Buchner discloses that upon activation of the activation switch and recognition of the transmitted signal the control unit 1 is instructed to lock or unlock doors, Column 3 lines 39-46).

However, Buchner does not disclose expressly that an interrupting unit which interrupts, if the vehicle is not started for a specified period of time, a supply of power to a transmission circuit and a receiving circuit, inside the controller, that perform communication, the transmission circuit outputting the request signal to the portable transceiver, the receiving circuit receiving the acknowledgement signal, in response to the request signal, from the portable transceivers.

Desai, however, discloses a power-save period intended to be used when a vehicle is inactive for a very long time period, and a receiver/controller (18) and power control circuitry (62) for conservation of power, which operates in three modes, a full ON mode, a sleep mode and a duty-cycling mode (control circuitry 62 interrupts the supply of power to the receive circuitry inside the receiver/controller 18 during the sleep mode, Column 6 lines 64-65). The full ON mode is entered upon detection of a transmitted signal from transmitter 14, and other wise it remains in the sleep mode or the duty-cycling mode (Column 6 lines 18-26, lines 29-41). The sleep mode and the duty-cycling mode are entered when a pre-determined time has elapsed (Figure 4, Column 7 lines 41-58).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to insert the Desai power saving invention into the Buchner electronic key system for the purpose of obtaining an interrupting unit that supplies power to the receive circuitry in a pre-determined manner to save power.

The suggestion or motivations for doing so are to obtain a safer and reliable security system for a vehicle when in a stand by mode; also to provide a system that saves the vehicles power by using an interrupting unit that puts the circuit in a stand by mode.

With respect to claim 3 Buchner in view of Desai discloses the electronic key system for a vehicle according to claim 1, wherein the plurality of switches are operational switches used for starting the engine Buchner (21 Figure 1) of the vehicle

Art Unit: 2836

providing safety during travel, and stopping the vehicle (22 Figure 1) Column 7 lines 5-15.

With respect to claim 4 Buchner in view of Desai discloses the electronic key system for a vehicle according to claim 1, wherein a switch for detecting that the user has boarded the vehicle is included as one of the plurality of switches (Buchner Monitoring circuits 13, 14, 15 Figure 3, Column 6 lines 27-28).

With respect to claim 5 Buchner discloses an electronic key system for a vehicle comprising a controller mounted in the vehicle (Control unit 1, Figure 1) and a portable transmitter (Key 9) carried by a user of the vehicle, the vehicle containing a locking unit (Control Unit 1 performs the locking and unlocking of door locks 2,3, Column 3 lines 47-52) which locks the vehicle so that the vehicle cannot be used until a lock release command is received (Column 3 lines 53-58), the portable transmitter (Key 9) comprising a transmitter unit that outputs a request signal (Column 3 lines 14-15, lines 40-41) to the controller in response to operation input by the user (Column 3 lines 36-38), and wherein the controller comprises: receiver (Control unit 1 has the capabilities of sending and receiving signals, Column 3 lines 14-15) which receives a request signal from the portable transmitter in response to an ON operation of a predetermined switch (Activation switch 7), the predetermined switch being previously identified from among a plurality of switches (Ignition lock 21, Brake pedal 22) positioned in the vicinity of the user when the user boards the vehicle, and a drive unit which outputs a lock release command to the locking unit when the request signal is compared and judged to be a request from the user (Column 3 lines 53-55). An interrupting unit controller which

Art Unit: 2836

permits a switching unit to supply power to the transmission circuit and the receiving circuit in response to an ON operation of the predetermined switch among the plurality of switches positioned in the vicinity of the user when the user boards the vehicle (Buchner discloses that upon activation of the activation switch and recognition of the transmitted signal the control unit 1 is instructed to lock or unlock doors, Column 3 lines 39-46).

Buchner, however, does not disclose expressly an interrupting unit which interrupts, if the vehicle is not started for a specified period of time, a supply of power to a receiving circuit inside the controller, that performs communication and which receives the request signal from the portable transmitters.

Desai, however, discloses a power-save period intended to be used when a vehicle is inactive for a very long time period (as disclosed in the background), and a receiver/controller (18) and power control circuitry (62) for conservation of power, which operates in three modes, a full ON mode, a sleep mode and a duty-cycling mode (control circuitry 62 interrupts the supply of power to the receive circuitry inside the receiver/controller 18 during the sleep mode, Column 6 lines 64-65). The full ON mode is entered upon detection of a transmitted signal from transmitter 14, and other wise it remains in the sleep mode or the duty-cycling mode (Column 6 lines 18-26, lines 29-41, see abstract). The sleep mode and the duty-cycling mode are entered when a predetermined time has elapsed (Figure 4, Column 7 lines 41-58).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to insert the Desai power saving invention into the Buchner

Art Unit: 2836

electronic key system for the purpose of obtaining an interrupting unit that supplies power to the receive circuitry in a pre-determined manner to save power, such as, when the predetermined switch is turned ON.

The suggestion or motivations for doing so are to obtain a safer and reliable security system for a vehicle when in a stand by mode; also to provide a system that saves the vehicles power by using an interrupting unit that puts the circuit in a stand by mode.

With respect to claim 7 Buchner discloses an electronic key system for a vehicle (Antitheft system Figure1) including a controller (Control unit 1) mounted in the vehicle and a portable transmitter (Key 9, is a code transmitter capable of receiving and transmitting coded signals. Since it functions as a transceiver Key 9 is called a portable transceiver, Column 3 lines 42-46) carried by a user of the vehicle, the vehicle comprising a locking unit (Door locks 2, tailgate lock 3) which locks the vehicle so that the vehicle cannot be used until a lock release command is received (Column 3, lines 53-58), the portable transmitter comprising a transmitter unit that outputs a request signal (Column 3 lines 42-46) to the controller in response to operation input by the user (The user manually activates the switch 7, in order for the transmitter to output a request signal in response to a broadcast signal sent by the control unit 1), and wherein the controller comprises: a receiver (transceiver unit in control unit 1) which receives a request signal from the portable transmitter in response to an ON operation of a predetermined switch (Activation switch 7, Column 3 lines 36-37), the predetermined switch being previously identified from among a plurality of switches (Ignition lock 21,



Art Unit: 2836

Brake pedal 22 and monitoring devices 13, 14 and 15) positioned in the vicinity of the user when the user boards the vehicle; a drive unit (a drive unit is inherently provided, since locking and unlocking is performed, there is also a mechanism that releases the steering lock or immobilizer) which outputs a lock release command to the locking unit (Column 3 lines 53-55) when the request signal is compared and judge to be a request from the user; and a switching unit controller (control circuitry 62) which permits a switching unit to provide normal supply of power to the receiving circuit in response to ON operation of the predetermined switch when the user boards the vehicle (Buchner discloses that upon activation of the activation switch and recognition of the transmitted signal the control unit 1 is instructed to broadcast a coded request signal to the exterior, which inherently provides normal power to the transceiver in control unit 1).

However, Buchner does not disclose expressly that a switching unit which permits an intermittent supply of power to be provided to a receiving circuit inside the controller (duty-cycling mode supply to receive circuitry 56), that performs communication and which receives the request signal from the portable transmitter, if the vehicle is not started for a predetermined period of time.

Desai, however, discloses a power-save period intended to be used when a vehicle is inactive for a very long time period (as disclosed in the background), and a receiver/controller (18) and power control circuitry (62) for conservation of power, which operates in three modes, a full ON mode, a sleep mode and a duty-cycling mode (control circuitry 62 interrupts the supply of power to the receive circuitry inside the receiver/controller 18 during the sleep mode, Column 6 lines 64-65). The full ON mode

Art Unit: 2836

is entered upon detection of a transmitted signal from transmitter 14, and other wise it remains in the sleep mode or the duty-cycling mode (Column 6 lines 18-26, lines 29-41, see abstract). The sleep mode and the duty-cycling mode are entered when a pre-determined time has elapsed (Figure 4, Column 7 lines 41-58).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to insert the Desai power saving invention into the Buchner electronic key system for the purpose of obtaining an interrupting unit that supplies power to the receive circuitry in a pre-determined manner, namely in an intermittent manner.

The suggestion or motivations for doing so are to obtain a safer and reliable security system for a vehicle when in a stand by mode; also to provide a system that saves the vehicles power by using an interrupting unit that puts the circuit in a stand by mode.

With respect to claim 8 Buchner in view of Desai discloses the electronic key system for a vehicle according to claim 5, wherein the plurality of switches are operational switches used for starting the engine Buchner (21 Figure 1) of the vehicle providing safety during travel, and stopping the vehicle Buchner (22 Figure 1) Column 7 lines 5-15.

With respect to claim 9 Buchner in view of Desai discloses the electronic key system for a vehicle according to claim 5, wherein a switch for detecting that the user has boarded the vehicle is included as one of the plurality of switches (Monitoring circuits 13, 14, 15 Figure 3, Column 6 lines 27-28).

With respect to claim 10 Buchner discloses an electronic key system for a vehicle including a controller mounted in the vehicle (Control unit 1) and a portable transceiver (Key 9, is a code transmitter capable of receiving and transmitting coded signals. Since it functions as a transceiver Key 9 is called a portable transceiver, Column 3 lines 42-46) carried by a user of the vehicle, the vehicle comprising a locking unit (Door locks 2, tailgate lock 3) which locks the vehicle so that use of the vehicle is not possible until a lock release command is received (Column 3 lines 53-58), and wherein the controller comprises: a transmitter that outputs a request signal (Column 3 lines 14-15, and lines 40-41) to the portable transceiver in response to an ON operation of a switch (Activation switch 7, Column 3 lines 35-36), the switch selectable from among a plurality of switches (Ignition lock 21, Brake pedal 22 and monitoring switches 13, 14 and 15) positioned in the vicinity of the user when the user boards the vehicle; a receiver which receives an acknowledgement signal in response to the request signal from the portable transceiver (transceiver in control unit 1), a drive unit (a drive unit is inherently provided, since locking and unlocking is performed, there is also a mechanism that releases the steering lock or immobilizer) which, when the acknowledgement signal is compared and judged to be a request from the user, outputs a lock release command to the locking unit (Column 3 lines 53-55). An interrupting unit controller which permits the interrupting unit to provide power to the transmission circuit and the receiving circuit in response to an ON operation of the switch when the user boards the vehicle (Buchner discloses that upon activation of the activation switch and recognition of the transmitted signal the control unit 1 is instructed to lock or unlock doors, Column 3 lines 39-46).

However, Buchner does not disclose expressly an interrupting unit which prevents, if the vehicle is not started for a specified period of time, a supply of power to a transmission circuit and a receiving circuit, inside the controller, that perform communication, the transmission circuit outputting the request signal to the portable transceiver, the receiving circuit receiving the acknowledgement signal, in response to the request signal, from the portable transceiver.

Desai, however, discloses a power-save period intended to be used when a vehicle is inactive for a very long time period, and a receiver/controller (18) and power control circuitry (62) for conservation of power, which operates in three modes, a full ON mode, a sleep mode and a duty-cycling mode (control circuitry 62 interrupts the supply of power to the receive circuitry inside the receiver/controller 18 during the sleep mode, Column 6 lines 64-65). The full ON mode is entered upon detection of a transmitted signal from transmitter 14, and other wise it remains in the sleep mode or the duty-cycling mode (Column 6 lines 18-26, lines 29-41). The sleep mode and the duty-cycling mode are entered when a pre-determined time has elapsed (Figure 4, Column 7 lines 41-58).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to insert the Desai power saving invention into the Buchner electronic key system for the purpose of obtaining an interrupting unit that supplies power to the receive circuitry in a pre-determined manner to save power.

The suggestion or motivations for doing so are to obtain a safer and reliable security system for a vehicle when in a stand by mode; also to provide a system that

saves the vehicles power by using an interrupting unit that puts the circuit in a stand by mode.

With respect to claim 12 Buchner in view of Desai disclose the electronic key system for a vehicle according to claim 10, further comprising: a switching unit Desai (control circuitry 62) which permits an intermittent (duty-cycling) supply of power to be provided to the transmission circuit and the receiving circuit, inside the controller (Power control circuitry 62 controls the power being supplied to the receiver/controller 18), that perform communication if the vehicle is not started for a specified period of time (the main purpose of the invention disclosed by Desai is to save power when a vehicle is inactive for a very long time period); and a switching unit controller (control circuitry 62) which permits the switching unit to provide a normal supply of power to the transmission circuit and the receiving circuit in response to the ON operation of the switch when the user boards the vehicle (As disclosed by Buchner).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to insert the Desai power saving invention into the Buchner electronic key system for the purpose of obtaining an interrupting unit that supplies power to the receive circuitry in a pre-determined manner to save power. The power to the transmission circuit being supply in response to the ON operation of the switch disclosed by Buchner.

With respect to claim 13 Buchner in view of Desai disclose the electronic key system for a vehicle according to claim 10 wherein the switch is located at an approximate center of the vehicle Buchner (Figure 1).

With respect to claim 14 Buchner in view of Desai disclose the electronic key system for a vehicle according to claim 10 wherein the switch is selected from the group comprising a clutch switch (22 Figure 4, Column 7 lines), an indicator switch (Trigger Switch 11), and a brake switch (22 Figure 4).

With respect to claim 15 Buchner in view of Desai disclose the electronic key system for a vehicle according to claim 10 wherein the switch is located on a steering mechanism of the vehicle (Buchner does not disclose expressly that the switch is located on a steering mechanism of the vehicle, the position of the switch is determined by the designer/manufacture and it could be placed anywhere on the vehicle).

With respect to claim 16 Buchner in view of Desai discloses the electronic key system for a vehicle according to claim 7, wherein the plurality of switches are operational switches used for starting the engine Buchner (21 Figure 1) of the vehicle, providing safety during travel, and stopping the vehicle Buchner (22 Figure 1) Column 7 lines 5-15.

With respect to claim 17 Buchner in view of Desai discloses the electronic key system for a vehicle according to claim 7, wherein a switch for detecting that the user has boarded the vehicle is included as one of the plurality of switches (Monitoring circuits 13, 14, 15 Figure 3, Column 6 lines 27-28).

### ***Response to Arguments***

4. Applicant's arguments filed June 22, 2006 have been fully considered but they are not persuasive.

Applicant argues that a receive circuitry 56 have to wait (operate) at all times, and the circuitry 56 is supplied with power at all times. Examiner disagrees in view of the teachings of Desai, which states that the receiver/controller includes receiver means having an ON state for detecting and receiving and an OFF state, Column 3 lines 22-25. Desai discloses that the purpose of his invention is to reduce power consumption of the vehicle. Regarding the intermittently supply of power of claim 7, it is noted that it is anticipated by Desai's duty-cycling mode, which supplies power in an intermittent fashioned.

It is respectfully submitted that the advantages are achieved by the teachings of Buchner and Desai, when considered in combination as discussed above.

### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2836

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to the examiner's supervisor, Brian Sircus who can be reached on (571)272-2800. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CA



**CHAU N. NGUYEN**  
**PRIMARY EXAMINER**